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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,102	02/19/2002	Kenneth J. Wayne	10011474-1	6062

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EXAMINER

WUJCIAK, ALFRED J

ART UNIT PAPER NUMBER

3632

DATE MAILED: 12/09/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/079,102

Applicant(s)

WAYNE, KENNETH J.

Examiner

Alfred J Wujciak III

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11-13, 15 and 17 is/are rejected.
- 7) ☒ Claim(s) 6-10, 14 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

This is the first Office Action for the serial number 10/079,102, ~~LOW COST~~  
OPTOMECHANICAL MOUNT FOR PRECISELY STEERING/POSITIONING A LIGHT  
BEAM, filed on 11/8/02.

#### ***Drawings***

The drawings are objected to because Figure 3A shows two different views, they should be labeled with two different figure numbers. See MPEP 608.02 under "Numbering of Views". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Specification***

The disclosure is objected to because of the following informalities: On page 9 in specification, lines 28-29, "spring 309" should be changed to ---spring 409--- for clarification.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "the alignment tool" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent # 6,078,440 to Ueyama.

Ueyama teaches an optomechanical system (figure 11) comprising a sphere (15) adapted to contain an optical element (11). The system includes a first set of curved surfaces (26, located on top side of element 20 in figure 11) and a second set of curved surface (26, located on the bottom side of element 20 in figure 11) in contact with the sphere. Each member of the first set of curved surfaces contacts the sphere at approximately just one point and each member of the second set curved surface contacts the sphere at approximately just one point. Each member of the first set of curved surfaces is a ball and each member of the second set of curved surfaces is a

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ball. Each ball in the first set of balls has a corresponding ball in the second set of balls wherein each ball in the first set applies a force to the sphere that is collinear with and opposite to a force that corresponding ball in the second set applies to the sphere. The system comprises a housing (20) adapted to receive the sphere, first and second set of balls. The first set of curved surfaces comprises three curved surface (the downward edge part that touches the sphere, adjacent to element 26 and element 26 on the top side of element 20) and the second set of curved surfaces also comprises three curved surfaces (upward edge part that touches the sphere, adjacent to element 26 and element 26 on lower part of element 20). The sphere includes an opening (located where element 40 is mounted thereon) adapted insertion of a tool (40).

Claims 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent # 5,946,127 to Nagata.

Nagata teaches an optomechanical system comprising a sphere (10) being placed in a housing (20). The sphere having an opening shaped to receive an alignment tool (11). The system comprising a plurality of stationary magnets (13 and 31) fixed to the housing (20 and 30). The system further comprises a cover attached to the housing (28).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama in view of US Patent # 4,552,024 to Baker et al.

Ueyama teaches the sphere and the first and second set of curved surfaces but fails to teach the sphere and the first and second set of curved surfaces having a finishes that permit smooth rotation of the sphere. Baker et al. teaches a spheroid ball bearings (col. 3, lines 30-34) having a surface finish, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Ueyama's sphere, first and second set of curved surfaces with a surface finish as taught by Baker et al. to provide a smooth rotation between the sphere and curved surfaces.

***Allowable Subject Matter***

Claims 6-10, 14 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regard to claims 6-10, the prior art fails to teach the system further comprising a lid attached to the housing to apply a downward force upon the first set of balls, sphere, and second set balls. In regard to claim 14, the prior art fails to teach the system comprises the first set of three curved surfaces comprises 3 balls and the second set of three curved surfaces also comprises 3 balls. In regards to claim 18, the prior art fails to teach the system comprises a spring attached to the cover for applying a downward force upon the sphere.

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***Response to Arguments***

Applicant's arguments filed 10/23/03 have been fully considered but they are not persuasive.

In regard to claims 1-14, the examiner applies new ground of rejection using Ueyama's reference.

On page 6 of applicant's argument stating that Nagata's magnetic attraction between the first and second magnet is relied upon to initiate and continue movement but not overcoming the magnetic attraction. The examiner disagrees with the applicant because Nagata has a motor (46) to overcome the magnetic attraction. The action of overcoming the magnetic attraction allows the sphere to move otherwise it would be in stationary. The magnetic (31) is connected to a block (47) which is secured on a thread member (45) that is driven by the motor (46). The motor moves the block up or down in vertical direction that causes the magnetic attraction between elements 13 and 31 to move and down.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent # 6,639,625 to Ishida et al.

US Patent # 4,583,860 to Butner

US Patent # 4,245,884 to Magura et al.

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US Patent # 6,424,413 to Weber et al.

Japan Patent #11,271,014 to Sasae et al.

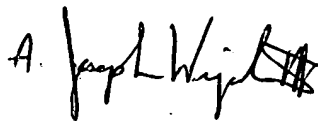
Ishida et al., Butner, Magura et al., Weber et al. and Sasae et al. teach the sphere in housing having optical device therein.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred Joseph Wujciak III whose telephone number is (703) 306-5994. The examiner can normally be reached on 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leslie A Braun can be reached on 703 308 2156. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Alfred Joseph Wujciak III  
Examiner  
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A handwritten signature in black ink, appearing to read "A. Joseph Wujciak III", with a stylized flourish at the end.

11/21/03